

ABSTRACT

The invention consists of oligonucleotides which inhibit the immunostimulatory activity of ISS-ODN (immunostimulatory sequence oligodeoxynucleotides) as well as methods for their identification and use. The oligonucleotides of the invention are useful in controlling therapeutically intended ISS-ODN adjuvant activity as well as undesired ISS-ODN activity exerted by recombinant expression vectors, such as those used for gene therapy and gene immunization. The oligonucleotides of the invention also have anti-inflammatory activity useful in reducing inflammation in response to infection of a host with ISS-ODN containing microbes, in controlling autoimmune disease and in boosting host Th2 type immune responses to an antigen. The invention also encompasses pharmaceutically useful conjugates of the oligonucleotides of the invention (including conjugate partners such as antigens and antibodies).